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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,586	CREAMER ET AL.	
	Examiner	Art Unit	
	Jason Mitchell	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are pending in this application.

Response to Arguments

2. Applicant asserts Boukobza nowhere provides a node or application that registers a plurality of hosts for performing host-based operations. (see the 1st full para. on pg. 14).

Examiner disagrees. Boukobza discloses "the process according to the invention advantageously makes it possible to monitor n machines, ... N1, N2, ..., Nn" (col. 4, lines 40-44). Those of ordinary skill in the art would recognize that without providing a node or application to somehow 'register' these nodes to the management node, Boukobza's system would be unable to find the nodes and thus to monitor them. Accordingly Boukobza at least inherently discloses the claimed limitation.

3. Applicant asserts Boukobza does not provide a mechanism to prevent unauthorized access to management node. (see the 1st full para. on pg. 14).

This point is moot in view of the new grounds of rejection provided below.

4. Applicant asserts Boukobza does not provide control signals for synchronizing a plurality of ghost agents such that the ghost agents, when synchronized, perform customer service operations on a particular one of the plurality of hosts because,

"Boukobza utilizes autonomous agents that are each allocated to a single, specific module at an individual node." (see the 2nd full para. on pg. 14).

Examiner disagrees. The limitation in question recites "a customer service application configured to ... convey control signals for synchronizing a plurality of ghost agents for performing customer service operation on one of the plurality of hosts". Examiner notes that this language does not recite a particular form the control signals must take or indicate what sort of actions are encompassed by the term synchronizing.

Accordingly, given a reasonably broad reading of the claims, Boukobza's allocation of each of a plurality of autonomous agents to single, specific modules at a node represents a 'synchronization' (e.g. agent_1 monitors module_X while agent_2 monitors module_Y).

Further, as indicated in the rejection below, Boukobza's *controls* this synchronization using 'line commands' written to a 'configuration file' (col. 6, lines 36-37), which is sent to each agent (col. 21, lines 51-56).

5. Applicant asserts Boukobza does not disclose a ghost log that stores log data internally and at periodic or irregular intervals deposits the log data to a local location, after which the ghost agent clears the ghost log. In support of this Applicant goes on to note that Boukobza's log files are "rapidly" feed back to the management node from each of the respective monitored nodes. (see the last para. on pg. 14 and 1st para. on pg. 15).

Initially, it is noted that the claim does not require the periodic or irregular intervals to be 'non-rapid'. In other words a system which feeds information to a management node every millisecond is still feeding this information periodically. Likewise, feeding the information "rapidly" after a particular event would constitute doing so at irregular intervals.

However, the point is largely moot in view of the new grounds of rejection.

6. Applicant asserts Boukobza does not teach providing one or more data-reaping agents to retrieve log data stored at a local location and conveying the retrieved log data to a ghost log repository because Boukobza rapidly feeds such information back to the management node and thus has no need to effect the retrieval or conveyance effected with Applicant's invention.

Examiner disagrees. Again the speed with which Boukobza performs his various functionalities does not distinguish the claims from the reference. Further, as indicated in the rejection below, Boukobza discloses "returning the [log files] of each node "N_agent" to the node "N_admin"" (col. 26, lines 62-65). In this disclosure it can be seen that node 'N_admin' is performing as a data-reaping agent, by collecting the log files, and thus anticipates the claimed limitation.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claim 30 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

The claim is directed to "A system" comprising various objects and means. Where each of the objects and means can be comprised entirely of software (e.g. "a customer service application", "[software] means for receiving", etc., "at least one data-reaping agent").

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 1, 14, 17 and 30 recite a "data-reaping agent". Applicant's specification only discloses a "data-reaping object" (see par. [0060]). This inconsistency in terminology renders the intended scope of the claim indefinite.

11. **Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 24 depends from "The method of claim 17". Claim 17 recites, "A machine-readable storage" (i.e. product). Accordingly, claim 24 is indefinite in that it is not clear if applicant intended the claim to be directed to a method or a product.

12. **Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 30 recites A system for supporting an application comprising the steps of ...", but does not go on to recite any actions. Accordingly it is unclear if Applicant intended the claim to be directed to a method or a system.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. **Claims 1, 3-11, 17, 19-27 and 30 are rejected under 35 U.S.C. 103(a) as being obvious over US 6,122,664 to Boukobza et al. (Boukobza) in view of US 6,175,732 to McDaniel et al. (McDaniel) further in view of US 6,799,198 Huboi et al. (Huboi).**

15. **Regarding Claims 1, 17 and 30:** Boukobza discloses:

providing a customer service application configured to register a plurality of hosts for performing host-based operations (col. 16, line 66-col. 17, line 4 "The basic function adds the name of the machine") and to convey control signals for synchronizing a plurality of hosts agents for performing customer service operations on one of the plurality of hosts (col. 6, lines 36-37 "the administrator configures the monitoring by writing line commands directly into the configuration file").

receiving a problem indication relating to said application (col. 2, lines 46-52 'test conditions ... and then ... warn of a problem');

identifying at least one of the plurality of hosts within a grid environment (col. 4, lines 64-67 'agents are installed ... in the nodes to be monitored'; col. 5, lines 13-18 'An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM (SM1, SM2, ..., SMn), each of which is specific to an object type');

associating a ghost agent with said at least one identified host (col. 4, lines 64-67 'agents are installed ... in the nodes to be monitored'; col. 5, lines 13-18 'An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM (SM1, SM2, ..., SMn), said ghost agent being configured to include at least one of a test engine, a ghost log, and a controller, wherein the test engine loads test routines into said ghost agent (col. 5, lines 9-13 "A new object can easily be incorporated by the process and monitored by an autonomous agent"), executes the test routines (col. 3, lines 30-39 "the parameter measurements it performs") in response to received test commands (col. 5, lines 9-13 "The starting and stopping of the monitoring process are controlled by the management node."), and analyzes within said ghost agent results of the executed test routines (col. 3, lines 30-39 "the conditions it evaluates ... the actions ... associated with these conditions it initiates or the operations it performs later"), wherein the ghost log stores log data internally within said ghost agent (see "LOG FILE" shown in the only Figure), and wherein said controller accepts control signals (col. 6, lines 55-58 "==>MAX_CPU percent of total cpu:") from the customer service application (col. 21, line 51 "sending of the resulting configuration file to each agent") and controls at least resources used by said ghost agent (col. 6, lines 55-58 "the maximum cpu time allocated");

retrieving stored log data and conveying the retrieved log data to a ghost log repository using at least one data-reaping agent (col. 6, lines 30-34 'collecting (in the management node) the log files ... for the independent analysis preformed by the

management node.'; col. 26, lines 62-65 "returning the files ... of each node "N_agent" to the node "N_admin");

replicating actions of said at least one identified host for use by said ghost agent (col. 6, lines 30-34 'log files of the actions of each node monitored');

recording data relating to said replicated actions (col. 5, lines 23-25 'A parameter ... (command to be executed, trace, curve display, etc.)'); and

responding to said problem based at least in part upon said recorded data (col. 5, lines 59-62 'If a parameter condition is true, an action is initiated').

16. Boukobza does not disclose periodically or at irregular intervals, depositing the log data to a local location, after which the ghost agent clears the ghost log.

17. McDaniel teaches, at irregular intervals (col. 11, lines 44-46 "If the log file 905 is filled above a threshold capacity"), depositing log data to a local location (col. 11, lines 55-57 "reads the requested records ... from the log file 905, and writes 919 them into a temporary file 906"), after which the ghost agent clears the log file (col. 64-67 "The LogMgr will then clear the whole log file").

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Boukobza and McDaniel to provide a space efficient method of maintaining Boukobza's ghost logs (Boukobza col. 20, lines 62-66 "allow the management of archives ... over a day/week/month/year"; McDaniel

col. 11, lines 44-46 "If the log file 905 is filled above a threshold capacity ... sends a "log file full" message")

19. The Boukobza-McDaniel combination does not explicitly teach the customer service application having a service interface configured to prevent unauthorized access to the customer service application.

20. Huboi teaches a customer service application (col. 9, lines 41-45 "the management server 206") having a service interface configured to prevent unauthorized access to the customer service application (col. 9, lines 41-45 "the security rights and user privilege levels ... may be used by the management server 206 to map to the access rights to the devices and assets being managed").

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Boukobza-McDaniel combination to include a service interface configured to prevent unauthorized access to the customer service application, as taught by Huboi in order to enforce "policies set by the company's Human Resources and Information Services departments" (Huboi col. 9, lines 50-56).

22. **Regarding Claims 3 and 19:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses providing a customer service interface (col. 4, lines 50-51 'The interface GUI also allows the display of parameter value curves'),

wherein a customer service representative utilizes said customer service interface during said responding step (col. 6, lines 30-34 'collecting (in the management node) the log files ... for the independent analysis preformed by the management node.').

23. **Regarding Claims 4 and 20:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses executing a test using said ghost agent, wherein said test utilizes said recorded data (col. 5, lines 23-29 'conditions related to the measurement just performed ... the action to be initiated when this condition is true').

24. **Regarding Claims 5 and 21:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses said responding further comprises performing a debugging operation using said ghost agent, wherein said debugging operation utilizes at least one replicated action (col. 9, lines 20-21 'the measurement is stored in a "trace" file TF for autonomous analysis').

25. **Regarding Claims 6 and 22:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses comparing said recorded data with at least one operational threshold provided by said ghost agent, such that said recorded data includes results of said comparing step (col. 5, lines 23-29 'A parameter contains ... the description of ... conditions related to the measurement ... (operator, threshold, etc.)').

26. **Regarding Claims 7 and 23:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses automatically detecting a problem within said application; and automatically generating said problem indication responsive to said detecting step (col. 2, lines 46-52 'test conditions ... and then ... warn of a problem').

27. **Regarding Claims 8 and 24:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses responsive to receiving said problem indication, automatically routing application activity from an area of said grid environment in which said problem occurred to an alternative area of said grid environment (col. 7, lines 59-63 'the application is switched to another node, for reasons of ... failure, of the original node').

28. **Regarding Claims 9 and 25:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses automatically fixing said problem based at least in part upon said recorded data (col. 2, lines 46-52 'test conditions ... and then ... correct').

29. **Regarding Claims 10 and 26:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses selecting a plurality of said hosts; and for each host repeating said associating step, said replicating step, said recording step, and said responding step (col. 4, lines 36-39 'monitor n machines'; col. 5, lines 13-18 'An autonomous agent SAA ... specific to an object type').

30. **Regarding Claims 11 and 27:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses identifying a location that is external to said ghost agent; and conveying said recorded data to said identified location (col. 6, lines 30-34 'collecting (in the management node) the log files ... for the independent analysis preformed by the management node.'). Note Identification of the Management Node is necessary to successfully transfer the data from collected by the agents to the Management Node.

31. **Claims 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,122,664 to Boukobza et al. (Boukobza) in view of US 6,175,732 to McDaniel et al. (McDaniel) further in view of US 6,799,198 Huboi et al. (Huboi) and further in view of US 2002/0087949 to Golender et al. (Golender).**

32. **Regarding Claims 2 and 18:** The rejections of claims 1 and 17 are incorporated, respectively; further Boukobza discloses receiving a problem indication (col. 2, lines 46-52 'test conditions ... and then ... warn of a problem') and an associating step (col. 4, lines 64-67 'agents are installed ... in the nodes to be monitored'; col. 5, lines 13-18 'An autonomous agent SAA ... is specific to an object type'), and that said responding step further comprises using said recorded data to determine actions of said user that resulted in said problem (col. 6, lines 30-35 'the log files of the actions ... for the

independent analysis'). But does not explicitly disclose receiving said problem indication from a user.

33. Golender teaches that 'Quite often, software problems appear for the first time at a customer's site' and 'when trying to debug these problems ... in response to a bug report ... the problem cannot be reproduced' (par. [0008])

34. Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention to perform Boukobza's associating step (col. 4, lines 64-67 'agents are installed ... in the nodes to be monitored'; col. 5, lines 13-18 'An autonomous agent SAA ... specific to an object type') on a host associated with the user (Golender [0008] 'customer's site') and in response to the 'bug report' taught by Golender ([0008]) because, as noted above, 'Quite often, software problems appear for the first time at a customer's site' and 'when trying to debug these problems ..in response to a bug report ... the problem cannot be reproduced' (par. [0008]).

35. **Claims 12-16 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,122,664 to Boukobza et al. (Boukobza) in view of US 6,175,732 to McDaniel et al. (McDaniel) further in view of US 6,799,198 Huboi et al. (Huboi) further in view of US 6,681,243 to Putzolu et al. (Putzolu).**

36. **Regarding Claims 12 and 28:** The rejections of claims 1 and 17 are incorporated, respectively; further the Boukobza-McDaniel-Huboi combination does not disclose moving said host and ghost agent within said grid environment.

37. Putzolu teaches moving said host within said grid environment (col. 3, lines 59-61 'Agents ... move to another device or environment'; col. 4, lines 17-23 'an agent may be ... a user application such as a word processor'); and moving said ghost agent within said grid environment (col. 3, lines 59-61 'Agents ... move to another device or environment'; col. 4, lines 17-23 'an agent may be ... an application functioning to diagnose, report on, or correct network conditions') in an analogous art for the purpose of managing a network (col. 3, lines 48-54 'The system and method ... allow for easier and more effective management of a network').

38. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Boukobza-McDaniel-Huboi combination to use the techniques disclosed by Boukobza (col. 4, lines 36-39 'the process ... to monitor n machines') to monitor mobile hosts as taught by Putzolu (col. 4, lines 17-23'a user application such as a word processor') and to move Boukobza's ghost agent (col. 4, lines 64-67 'autonomous agents') in accordance with movement of the associated host (col. 3, lines 59-61 'Agents ... move to another device or environment') in order to 'allow for easier and more effective management of a network' (Putzolu col. 3, lines 48-54) which contained such mobile hosts.

39. **Regarding Claims 13 and 29:** The rejections of claims 1 and 17 are incorporated, respectively; further the Boukobza-McDaniel-Huboi combination does not disclose disassociating said ghost agent from said host; and associating said ghost agent with a different host.

40. Putzolu teaches disassociating an agent from said host; and associating said ghost agent with a different host (col. 3, lines 59-61 'Agents ... may execute on a device or environment, move to another device or operating environment, and resume execution.') in an analogous art for the purpose of managing a network (col. 3, lines 48-54 'The system and method ... allow for easier and more effective management of a network').

41. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Boukobza-McDaniel-Huboi combination to provide Boukobza's Ghost Agents (col. 4, lines 64-67 'autonomous agents') with the mobility taught by Putzolu (col. 3, lines 59-61 'Agents ... may execute on a device or environment, move to another device or operating environment, and resume execution.') in order to 'allow for easier and more effective management of a network' (Putzolu col. 3, lines 48-54).

42. **Regarding Claim 14:** Boukobza discloses

a plurality of hosts, wherein said hosts are software objects for an application domain distributed within a grid environment, said grid environment being a distributed computing system that includes a plurality of hardware and software components (col. 4, lines 64-67 'agents are installed ... in the nodes to be monitored'; col. 5, lines 13-18 'An autonomous agent SAA ... is specific to an object type');

at least one ghost agent configured to be associated with at least one of said hosts (col. 5, 13-18 'An autonomous agent SSA is chiefly composed of a generic agent GA related to specific modules SM (SM1, SM2 ... SMn) each of which is specific to an object type or to a particular domain'), and is configured to include at least one of a test engine, a ghost log, and a controller, said test engine configured to load test routines into said ghost agent (col. 5, lines 9-13 "A new object can easily be incorporated by the process and monitored by an autonomous agent"), execute the test routines (col. 3, lines 30-39 "the parameter measurements it performs") in response to received test commands (col. 5, lines 9-13 "The starting and stopping of the monitoring process are controlled by the management node."), and analyze within said ghost agent results of the executed test routines (col. 3, lines 30-39 "the conditions it evaluates ... the actions ... associated with these conditions it initiates or the operations it performs later"), said ghost log configured to store log data internally within said ghost agent (see "LOG FILE" shown in the only Figure), and said controller configured to accept control signals (col. 6, lines 55-58 "==>MAX_CPU percent of total cpu:") from an external source (col. 21, line 51 "sending of the resulting configuration file to each agent") and control at least

system resources used by said ghost agent (col. 6, lines 55-58 "the maximum cpu time allocated");

at least one data-reaping agent for retrieving stored log data and conveying the retrieved log data to a ghost log repository (col. 6, lines 30-34 'collecting (in the management node) the log files ... for the independent analysis preformed by the management node.'; col. 26, lines 62-65 "returning the files ... of each node "N_agent" to the node "N_admin");

a customer service application configured to register the plurality of hosts (col. 16, line 66-col. 17, line 4 "The basic function adds the name of the machine") for performing host-based operations to determine actions leading to at least one problem utilizing the at least one associated ghost agent (col. 6, lines 30-35 'collecting (in the management node) the log files of the actions ... for the independent analysis') and to convey signals for synchronizing a plurality of ghost agents for performing customer service operations on one of the plurality of hosts (col. 6, lines 36-37 "the administrator configures the monitoring by writing line commands directly into the configuration file").

43. Boukobza does not disclose periodically or at irregular intervals, depositing the log data to a local location, after which the ghost agent clears the ghost log.

44. McDaniel teaches, at irregular intervals (col. 11, lines 44-46 "If the log file 905 is filled above a threshold capacity"), depositing log data to a local location (col. 11, lines 55-57 "reads the requested records ... from the log file 905, and writes 919 them into a

temporary file 906"), after which the ghost agent clears the log file (col. 64-67 "The LogMgr will then clear the whole log file").

45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Boukobza and McDaniel to provide a space efficient method of maintaining Boukobza's ghost logs (Boukobza col. 20, lines 62-66 "allow the management of archives ... over a day/week/month/year"; McDaniel col. 11, lines 44-46 "If the log file 905 is filled above a threshold capacity ... sends a "log file full" message").

46. The Boukobza-McDaniel combination does not explicitly teach the customer service application having a service interface configured to prevent unauthorized access to the customer service application.

47. Huboi teaches a customer service application (col. 9, lines 41-45 "the management server 206") having a service interface configured to prevent unauthorized access to the customer service application (col. 9, lines 41-45 "the security rights and user privilege levels ... may be used by the management server 206 to map to the access rights to the devices and assets being managed").

48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Boukobza-McDaniel combination to include a service

interface configured to prevent unauthorized access to the customer service application, as taught by Huboi in order to enforce "policies set by the company's Human Resources and Information Services departments" (Huboi col. 9, lines 50-56).

49. The Boukobza-McDaniel-Huboi combination does not disclose wherein said ghost agent moves within a grid environment.

50. Putzolu teaches an agent which moves within a grid environment (col. 3, lines 59-61 'Agents ... may execute on a device or environment, move to another device or operating environment, and resume execution.') in an analogous art for the purpose of managing a network (col. 3, lines 48-54 'The system and method ... allow for easier and more effective management of a network').

51. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Boukobza-McDaniel-Huboi combination to provide Boukobza's Ghost Agents (col. 4, lines 64-67 'autonomous agents') with the mobility taught by Putzolu (col. 3, lines 59-61 'Agents ... may execute on a device or environment, move to another device or operating environment, and resume execution.') in order to 'allow for easier and more effective management of a network' (Putzolu col. 3, lines 48-54)

52. **Regarding Claim 15:** The rejection of claim 14 is incorporated; further Boukobza discloses said customer service application is further configured to debug said at least one reported problem using said ghost agents (col. 2, lines 46-52 'test conditions ... and then ... correct').

53. **Regarding Claim 16:** The rejection of claim 14 is incorporated, further Boukobza discloses a service data store communicatively linked to a plurality of ghost agents (Fig. 1, 'Trace File'), wherein said service data store is configured to record data generated by said ghost agents for use by said customer service application (col. 6, lines 30-35 'collecting (in the management node) the log files of the actions ... for the independent analysis').

Conclusion

54. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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